

Patent claims

1. A smoke- and water-vapor-permeable food casing made of a mixture based on polyamide or copolyamide, which is impregnated with liquid smoke on the food-facing side.  
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2. The food casing as claimed in claim 1, wherein it is tubular, preferably seamless.
- 10 3. The food casing as claimed in claim 1 or 2, wherein it consists of a mixture which comprises a) at least one aliphatic polyamide and/or aliphatic copolyamide and also b) at least one thermoplastic other polymer or copolymer.
- 15 4. The food casing as claimed in claim 3, wherein the polyamide or copolyamide is polycaprolactam (nylon 6), polyhexamethyleneadipamide (nylon 6,6), a polyblend or random copolyamide of nylon 6 and nylon 66 (nylon 6/6,6), nylon 11, nylon 12, polytetramethyleneadipamide (nylon 4,6), nylon 6,10, a copolyamide of  $\epsilon$ -caprolactam and  $\omega$ -laurolactam (nylon 6,12), a copolyamide of nylon 6 or a nylon 12 (nylon 6/12).  
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5. The food casing as claimed in claim 3, wherein the polyamide or copolyamide forms therein a coherent phase.
- 25 6. The food casing as claimed in claim 3, wherein the fraction of the component a) in each case based on the total weight of the mixture is 40 to 90 % by weight, preferably 45 to 80 % by weight, particularly preferably 50 to 75 % by weight.
- 30 7. The food casing as claimed in one or more of claims 1 to 6, wherein the thermoplastic further polymer or copolymer is hydrophilic, preferably a heterofunctional polyamide, particularly preferably a polyetheramide, polyesteramide, polyetheresteramide or polyamidourethane, an  $\alpha$ -olefin/vinyl acetate copolymer, a partially or completely saponified ethylene/vinyl acetate copolymer, a partially or completely saponified  
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5 polyvinyl acetate, a polyesterurethane, a polyetherurethane, a polyester-etherurethane, a polyalkylene glycol, a polyvinylpyrrolidone or a copolymer having vinylpyrrolidone units and units of other  $\alpha,\beta$ -olefinically unsaturated monomers, a (co)polymer having N-vinylalkylamide units or a (co)polymer having units of  $\alpha,\beta$ -unsaturated carboxylic acids or  $\alpha,\beta$ -unsaturated carboxamides, in particular having units of (meth)acrylic acid and/or (meth)acrylamide.

- 10 8. The food casing as claimed in claim 3, wherein the component b) is a water-soluble organic polymer which swells under the action of water or water vapor.
- 15 9. The food casing as claimed in claim 3, wherein the fraction of the component b), in each case based on the total weight of the thermoplastic mixture, is 10 to 60 % by weight, preferably 20 to 55 % by weight, particularly preferably 25 to 50 % by weight.
- 20 10. The food casing as claimed in one or more of claims 1 to 9, wherein the thermoplastic mixture additionally contains at least one organic or inorganic filler.
- 25 11. The food casing as claimed in claim 10, wherein the inorganic filler consists of quartz powder, titanium dioxide, talcum, mica and other aluminosilicates, glass staple fibers and other mineral fibers and/or glass microspheres.
- 30 12. The food casing as claimed in claim 10, wherein the organic filler is a polysaccharide, preferably starch, cellulose, exo-polysaccharides and/or a polysaccharide derivative, preferably crosslinked starch, starch ester, cellulose ester or ether or carboxyalkylcellulose ether.
- 35 13. The food casing as claimed in claim 10, wherein the fraction of the filler, in each case based on the total weight of the thermoplastic mixture is not greater than 40 % by weight, preferably 1 to 25 % by weight, particularly preferably 2 to 15 % by weight.

14. The food casing as claimed in one or more of claims 1 to 13, wherein its water vapor permeability (WVP), determined as specified in DIN 53 122, with air impinging the casing on a single side at 23 °C and at a relative humidity of 85 %, is at least 30 g/m<sup>2</sup>·d, preferably 60 to 500 g/m<sup>2</sup>·d, particularly preferably 80 to 300 g/m<sup>2</sup>·d.
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15. The food casing as claimed in one or more of claims 1 to 14, wherein it is multilayered.
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16. The food casing as claimed in one or more of claims 1 to 15, wherein it is biaxially stretched and heat set.
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17. The food casing as claimed in one or more of claims 1 to 16, wherein the liquid smoke is an acidic liquid smoke, preferably a natural liquid smoke, a neutral liquid smoke, or a liquid smoke made alkaline.
18. The food casing as claimed in one or more of claims 1 to 17, wherein it is in stirred form.
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19. A method for producing a smoked food in a water-vapor- and smoke-permeable tubular casing having the steps
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- providing a ready-to-stuff tubular casing based on polyamide,
  - stuffing the casing with a food, preferably sausage emulsion, in particular with raw sausage emulsion,
  - closing the casing and
  - storing the stuffed casing,
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- which comprises the polyamide-based casing being a casing as claimed in one or more of claims 1 to 17.
20. The use of the food casing as claimed in one or more of claims 1 to 17 for smoked sausage products or smoked cheese.

**Abstract:**

**Smoke and steam-permeable food casing comprising a flavored interior surface**

The present invention relates to a smoke and water-vapor-permeable food casing based on aliphatic polyamide and/or aliphatic copolyamide, which is impregnated with liquid smoke on the food-facing side.